

AMENDMENT TO THE CLAIMS

The following listing of claims replaces all prior versions and listings of the claims in this application:

Listing of Claims:

Claims 1. through 15. (Cancelled)

16. (Currently Amended) A method of forming an organic molecule, comprising contacting a hydrolase enzyme with an organic reactant, wherein:

the organic reactant is selected from the group consisting of:

$(\text{CH}_3)_2\text{Si}(\text{OCH}_3)_2$; $(\text{CH}_3)(\text{CF}_3\text{CH}_2\text{CH}_2)\text{Si}(\text{OCH}_3)_2$; $(\text{C}_6\text{H}_5)(\text{CH}_3)\text{Si}(\text{OCH}_3)_2$;
 $(\text{CH}_3\text{CH}_2)_2\text{Ge}(\text{OCH}_2\text{CH}_3)_2$; $(\text{CH}_3)\text{Si}(\text{OCH}_2\text{CH}_3)_3$; ~~$\text{Si}(\text{OCH}_2\text{CH}_3)_4$~~ ; 1,3,5,7-tetramethyl-
1,3,5,7-tetramethoxy-cyclotetrasiloxane; 1,3-bis(hydroxy)tetramethyldisiloxane;
[(HO) $_2$ (CH $_3$)SiO] $_3$ SiCH $_3$, (Me $_3$ SiO(CH $_2$ CH $_2$ O) $_4$ CH $_3$), 3-
glycidoxypropyldimethylethoxysilane, 1,1-dimethyl-1-sila-2-oxacyclohexane,
trimethylsilanol, trimethylethoxysilane or a combination thereof;

the hydrolase enzyme is selected from the group consisting of: *Candida antarctica* lipase, *Candida antarctica* lipase B, *Rhizomucor miehei* lipase, wheat germ lipase, trypsin, cutinase, ~~pepsin, papain~~, or a combination thereof; and

the hydrolase enzyme catalyzes the hydrolysis and condensation of the organic reactant to form the organic molecule.

17. (Cancelled)

18. (Cancelled)

19. (Previously Presented) The method according to claim 16, wherein the hydrolase enzyme is trypsin.

20. (Cancelled)

21. (Original) The method according to claim 16, wherein the concentration of hydrolase enzyme is equal to or greater than 1 mg/mL.
22. (Original) The method according to claim 21, wherein the concentration of hydrolase enzyme is from about 20 mg/mL to about 60 mg/mL.
23. (Cancelled)
24. (Previously Presented) The method according to claim 16, wherein the organic reactant to enzyme mole ratio is less than or equal to about 40000:1.
25. (Original) The method according to claim 16, wherein the reaction is conducted at a pH from about 5.0 to about 8.0.
26. (Cancelled)
27. (Previously Presented) The method according to claim 16, wherein the reaction is conducted in an aqueous solution or a solvent.
28. (Original) The method according to claim 16, wherein the reaction is conducted at a temperature of between about 5°C to about 90°C.
29. (Original) The method according to claim 28, wherein the reaction is conducted at a temperature of between about 20°C to about 50°C.
30. (Original) The method according to claim 29, wherein the reaction is conducted at a temperature of about 25°C.
31. (Currently Amended) A method of forming an organic intermediate molecule, comprising contacting a hydrolase enzyme with an organic reactant, wherein:

the organic reactant is selected from the group consisting of:

$(\text{CH}_3)_2\text{Si}(\text{OCH}_3)_2$; $(\text{CH}_3)(\text{CF}_3\text{CH}_2\text{CH}_2)\text{Si}(\text{OCH}_3)_2$; $(\text{C}_6\text{H}_5)(\text{CH}_3)\text{Si}(\text{OCH}_3)_2$;
 $(\text{CH}_3\text{CH}_2)_2\text{Ge}(\text{OCH}_2\text{CH}_3)_2$; $(\text{CH}_3)\text{Si}(\text{OCH}_2\text{CH}_3)_3$; $\text{Si}(\text{OCH}_2\text{CH}_3)_4$; 1,3,5,7-tetramethyl-
1,3,5,7-tetramethoxy-cyclotetrasiloxane; ~~1,3-bis(hydroxy)tetramethyldisiloxane;~~

$[(\text{HO})_2(\text{CH}_3)_2\text{SiO}]_3\text{SiCH}_3$, $(\text{Me}_3\text{SiO}(\text{CH}_2\text{CH}_2\text{O})_4\text{CH}_3)$, 3-glycidoxypropyldimethylethoxysilane, 1,1-dimethyl-1-sila-2-oxacyclohexane, trimethylethoxysilane or a combination thereof,

the hydrolase enzyme is selected from the group consisting of *Candida antarctica* lipase, *Candida antarctica* lipase B, *Rhizomucor miehei* lipase, wheat germ lipase, trypsin, cutinase, ~~pepsin~~, ~~papain~~, or a combination thereof; and

the hydrolase enzyme catalyzes the hydrolysis of the organic reactant to form the organic intermediate molecule.

32. (Currently Amended) A method of forming an organic molecule, comprising contacting a hydrolase enzyme with an organic intermediate reactant, wherein:

the organic intermediate reactant is selected from the group consisting of:

$(\text{CH}_3)_2\text{Si}(\text{OH})_2$, $(\text{CH}_3)(\text{CF}_3\text{CH}_2\text{CH}_2)\text{Si}(\text{OH})_2$, $(\text{C}_6\text{H}_5)(\text{CH}_3)\text{Si}(\text{OH})_2$, $(\text{CH}_3\text{CH}_2)_2\text{Ge}(\text{OH})_2$, $(\text{CH}_3)_3\text{Si}(\text{OH})_3$, $(\text{CH}_3)_2\text{Si}(\text{OH})_2$, $(\text{CH}_3)(\text{CF}_3\text{CH}_2\text{CH}_2)\text{Si}(\text{OH})_2$, $(\text{C}_6\text{H}_5)(\text{CH}_3)\text{Si}(\text{OH})_2$, $(\text{CH}_3\text{CH}_2)_2\text{Ge}(\text{OH})_2$, $(\text{CH}_3)_3\text{Si}(\text{OH})_3$, $\text{Si}(\text{OH})_4$, 1,3,5,7-tetramethyl-1,3,5,7-tetrahydroxy-cyclotetrasiloxane; 1,3-bis(hydroxy)tetramethyldisiloxane; $[(\text{HO})_2(\text{CH}_3)_2\text{SiO}]_3\text{SiCH}_3$, 3-glycidoxypropyldimethylsilanol, $\text{HO}(\text{CH}_2)_3(\text{CH}_3)_2\text{SiOH}$, trimethylsilanol, or a combination thereof,

the hydrolase enzyme is selected from the group consisting of *Candida antarctica* lipase, *Candida antarctica* lipase B, *Rhizomucor miehei* lipase, wheat germ lipase, trypsin, cutinase, ~~pepsin~~, ~~papain~~, or a combination thereof; and

the hydrolase enzyme catalyzes the condensation of the organic intermediate reactant to form the organic molecule.

33. Cancelled

34. (Currently Amended) ~~A~~ The method of claim 1 forming an organic molecule, comprising contacting a hydrolase enzyme comprising trypsin, cutinase, or a combination thereof, with an

~~wherein the organic reactant is selected from the group consisting of:~~ $(\text{CH}_3)_2\text{Si}(\text{OCH}_3)_2$; $(\text{CH}_3)(\text{CF}_3\text{CH}_2\text{CH}_2)\text{Si}(\text{OCH}_3)_2$; $\text{C}_6\text{H}_5(\text{CH}_3)\text{Si}(\text{OCH}_3)_2$; $(\text{CH}_3\text{CH}_2)_2\text{Ge}(\text{OCH}_2\text{CH}_3)_2$;

$(\text{CH}_3)_3\text{Si}(\text{OCH}_2\text{CH}_3)_3$; $\text{Si}(\text{OCH}_2\text{CH}_3)_4$; 1,3,5,7-tetramethyl-1,3,5,7-tetramethoxy-cyclotetrasiloxane; 1,3-bis(hydroxy)tetramethyldisiloxane; $[(\text{HO})_2(\text{CH}_3)_2\text{SiO}]_3\text{SiCH}_3$, $(\text{Me}_3\text{SiO}(\text{CH}_2\text{CH}_2\text{O})_3\text{CH}_3)$, 3-glycidoxypropyldimethylethoxysilane, 1,1-dimethyl-1-sila-2-oxacyclohexane, trimethylsilanol, trimethylethoxysilane or a combination thereof; wherein the hydrolase enzyme catalyzes the hydrolysis and condensation of the organic reactant to form the organic molecule.

35. Cancelled